

**REMARKS**

In the Office Action mailed July 27, 2006, claims 10-12, 15, 16, 18, and 19 were allowed, claims 5-8 and 14 were rejected, and the status of claim 13 was left indeterminate, being shown as allowable on the PTOL-326 form and in the Allowable Subject Matter section starting on page 3 of the Office Action, but rejected under 35 USC § 103 elsewhere on page 3 of the Office Action. In view of the Examiner's remarks, Applicants infer that rejection of claim 13 was intended, and respond accordingly herein. Claims 1-4, 9, 17, and 20-22 were previously canceled.

Applicants have thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references.

**ALLOWABLE SUBJECT MATTER**

Applicants thank the Examiner for finding allowable subject matter in claims 10-12, 15, 16, 18, and 19. Applicants have canceled claim 5, and have amended claims 6-8, 13, and 14 to add the further limitations of the rejected claims to one or another of the allowable claims. Applicants therefore respectfully submit that all of the claims are in condition for allowance.

**CLAIM REJECTIONS – 35 U.S.C. § 102(b)**

The Examiner rejected claims 5-8 under 35 U.S.C. §102(b) as being anticipated over United States Patent No. 4,377,737 to Berry (hereinafter referred to as "Berry").

Examiner further rejected claims 5-8 and 14 under 35 U.S.C. §102(b) as being anticipated over United States Patent No. 6,078,729 to Kopel (hereinafter referred to as "Kopel").

A § 102 rejection is proper only if each and every element as set forth in the claim is found—i.e., the prior art must teach every aspect of the claim. See *Verdegall Bros. v. Union Oil Co. of California* 918 F.2d 628,631 (Fed. Cir. 1987); see also MPEP §2131.

Claim 7, and thus dependent claims 6 and 8, recite a steam generator comprising “a thermostat configured to monitor a temperature associated with the heating element and further configured to turn off the heating element when the heating element reaches a predetermined temperature, wherein the thermostat automatically turns back on the heating element when the temperature associated with the heating element goes below a predetermined temperature.”

Cited art Berry couples a heating element 42 to a surrounding shell (tube 34) using water captured between the element and shell, raised to superheated steam by the heating element 42 and transferring its heat to the shell 34 by convection/conduction. This heat is transferred to a second volume of (saturated) steam above a water bath within an enclosure by radiant (infrared) heating. The secondary heating excites the second volume to dry (superheated) steam. The temperature of the shell is regulated by thermostat (“temperature control (not shown)”), with the thermostat set points either computer-controlled or otherwise established. The operation of the thermostat turns the heating element 42 on and off as needed to hold the shell 34 to a particular temperature range. In the embodiments described in Berry, the temperature of the heating element itself is not sensed or regulated; only the shell temperature is controlled. Indeed, it is evident that the heating element temperature will vary widely, and largely independently of the shell temperature, during operation. Thus, Applicants’ claim 7 is not anticipated by Berry, and is allowable over Berry, and claims 6 and 8 are allowable at least by virtue of their dependence from claim 6.

Cited art Kopel describes earlier HVAC humidifiers that apply power to heating elements submerged in a water-filled reservoir based on a humidistat signal or other command, and that regulation of humidifier operation is based on water conductivity, water level, or another parameter, with an interval until a next draining and refilling of the reservoir determined by an

external controller, such as a timer. The invention of Kopel adaptively regulates time between successive drain-and-refill cycles according to extent of water contamination to optimize drain-and-refill frequency. Both the prior art cited in Kopel and the invention of Kopel cycle the heaters according to a need for added humidity and disable the heaters during drain-and-refill events; none detects any temperature in the reservoir other than as a safety backup (column 6, line 13; col. 12, ll. 22-29). Indeed, except in case of trouble, the heater is normally turned off only for low water level, if the demand for added steam stops, or if the detected contamination level exceeds an established threshold (Fig. 11B, ref. num. 346). Neither the disclosure nor the flowcharts and other drawings suggest a process even for turning the humidifier back on after an overtemperature event. Thus, Applicants' claim 7 is not anticipated by Kopel, and is allowable over Kopel, and claims 6 and 8 are allowable at least by virtue of their dependence from claim 6.

Regarding claim 14, Applicants respectfully submit that this claim, as amended, is allowable at least for the reason that it recites a combination not taught or suggested by Kopel.

In light of the cancellation of claim 5 and the amendment of claims 6-8 and 14, withdrawal of the rejection under 35 U.S.C. § 102(b) of claims 6-8 as being anticipated by Berry and 6-8 and 14 as being anticipated by Kopel is respectfully requested.

#### **CLAIM REJECTIONS – 35 U.S.C. § 103(a)**

The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Kopel in view of Examiner's statement of Official Notice.

In light of the amendment of claim 13 to recite a combination not taught or suggested by Kopel, withdrawal of the rejection of claim 13 under 35 U.S.C. § 103(a) as being anticipated by Kopel in view of Examiner's statement of Official Notice is respectfully requested.

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PATENT

### CONCLUSION

In view of the foregoing remarks, Applicants respectfully request that the rejections to claims 6-8, 13, and 14 be withdrawn. It is respectfully submitted that the application is now in condition for allowance. If it is believed that the application is not in condition for allowance, the Examiner is requested to contact the undersigned attorney at 202-861-1792 if it is believed that such contact will expedite the prosecution of the application.

Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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